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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,846	06/27/2003	Nam Young Kong	049128-5107	4819

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EXAMINER

TRAN, HENRY N

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/606,846

Applicant(s)

KONG, NAM YOUNG

Examiner

Henry N. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/12/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

This Application has been examined. The original claims 1-15 are pending. The examination results are as follows.

Information Disclosure Statement

1. The examiner has considered the documents listed in form PTO/SB/08a/b submitted with the Information Disclosure Statement (IDS) received 9/12/05 (see the attached form PTO/SB/08a/b).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al (U.S. Patent No. 5,995,084, hereinafter "Chan") in view of Dotson et al (U.S. Patent No. 6,611,257, hereinafter "Dotson").

4. Re claim 1, Chan teaches a driving apparatus of a touch panel, comprising: a touch panel (110) for generating a coordinate signal according to a position of a contact point, see Fig. 3A, col. 8, lines 36-65; two interface circuits: a touch pad computer interface protocol 295 and a mouse protocol interface 285 provided in the touchpad computer interface (180) and are connected to the touch panel; a computer system (185) driving the touch panel and connected to any one of the two interfaces; a sensor (a protocol selector 300) for automatically detecting the

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interface that is connected to the computer system, see Fig. 3B, and col. 11, lines 49-64; and a controller (100) for converting the coordinate signal in accordance with the interface detected at the sensor and transmitting the converted coordinate signal to the computer system (a touch pad pen-input /mouse controller 100 has a touchpad driver 120 for driving the touch panel 110, wherein the ADC is used to convert coordinate signal voltages into digital codes 135 for transmitting to the computer system 185 based on the selected interface, see Fig. 3A).

However, Chan does not teaches expressly the use of two interface integrated circuits connected to the computer system for being automatically detected by the sensor.

Dotson teaches a driving apparatus of a touch panel, which comprises interface integrated circuits, e.g., Figs. 5A-5D, generated by different configurations of an analog switching matrix (104) provided in a touch screen interface 100, which is connected to the computer system through an USB host (81) for being automatically detected; see Figs. 2 and 3, col. 5, lines 3-44, and col. 6, lines 53-60.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize interface integrated circuits provided by the analog switching matrix (104) as taught by Dotson in the Chan touch panel because this would provide the enhanced functionality of a touchpad computer interface, which would improve the versatility of a touch system that is not only capable of providing pen or mouse input, but also able to distinguish and effectively use different types of touch panels or touch screens that is being automatically detected, see Dotson, abstract, and col. 6, lines 55-60. By this rational, claim 1 is rejected.

5. Re claim 2, Chan further teaches that interface circuits (a touchpad protocol 295 and a mouse protocol 285) and the sensor (300) is provided in the touchpad control interface (180), see

Fig. 3B, which is integrated with the controller 100 (a touchpad pen-input controller).

6. Re claim 3, Chan further teaches the controller 100 includes: an analog-to-digital converter ADC 130 for converting an coordinate signal of analog input (voltages 115) from the touch panel into a coordinate signal of digital, see col. 8, lines 58-65; a microcomputer (the computer system 185) for converting the digital coordinate signal into a coordinate value in accordance with the interface integrated circuit sensed at the sensor; and a selector (300) for selecting the interface integrated circuit sensed at the sensor among the two interface integrated circuits; see Figs. 3A and 3B.
7. Re claim 4, Chan, Fig. 3B, discloses that the sensor (300) is integrated with the microcomputer (the computer system 185).
8. Re claim 5, Dotson further teaches the use of receiving connectors and transmitting connectors 73 (Dotson teaches the use of one or more universal asynchronous receiver-transmitters (UARTs) 73 for interfacing from the touch screen interface to the computer, see Fig. 2, which is read on the claimed two transmitting connectors and two receiving connectors used in the interface circuits.
9. Re claim 6, Dotson further teaches that the interface integrated circuits provided in the touch screen interface 100 are connected to the computer system using a serial communication (a serial interface 74 and a serial port), see Fig. 2.
10. Re claims 7-9, Chan further teaches that the sensor 300 senses the touchpad interface 295 and the mouse interface 285, which are connected to the computer system 185 when the computer system sends a sense control signal to the sensor 300 (a select command) to the

touchpad computer interface, see col. 11, lines 49-64. Dotson further teaches the use a USB communication (see Fig. 2, USB 81).

11. Re claims 10-15, which are method claims corresponding to the apparatus claims 1, 3, and 6-9, and are rejected on the same basis set forth in claims 1, 3 and 6-9 discussed above

Conclusion

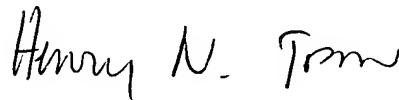
12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are U.S. Patents Nos. 5,956,020 to D'Amico et al, 6,765,558 to Dotson, 6,621,487 to Iwasaki et al, 6,061,051 to Chan et al, and 6,816,153 to Yamada et al, which teach touchpad or touch screen system with different interface integrated circuits.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry N. Tran whose telephone number is 571-272-7760. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick N. Edouard can be reached on 571-272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, reading "Henry N. Tran". The signature is written in a cursive, flowing style.

Henry N Tran
Primary Examiner
Art Unit 2674

HT
11/22/05